

Explosion-Proof Forced Air Unit Heater - XGB

The Norseman™ XGB Series hazardous environment heater is designed to accommodate your requirements with flexibility and ease of maintenance, even under the toughest conditions.

Norseman™ XGB unit heaters are available in two sizes, small cabinet units with ratings of up to 10 kW and large cabinet units with ratings of up to 35 kW.

Applications

The Norseman™ XGB is designed specifically for heating industrial spaces where potentially explosive substances are or may be present.

Typical hazardous location environments include:

- Water and sewage treatment plants
- Oil refineries
- Compressor stations
- Pulp and paper mills
- Paint storage booths
- Cement plants
- Mines
- Marine and offshore

Certification

Certified by CSA to Canadian and US standards, with standard models approved for the following:

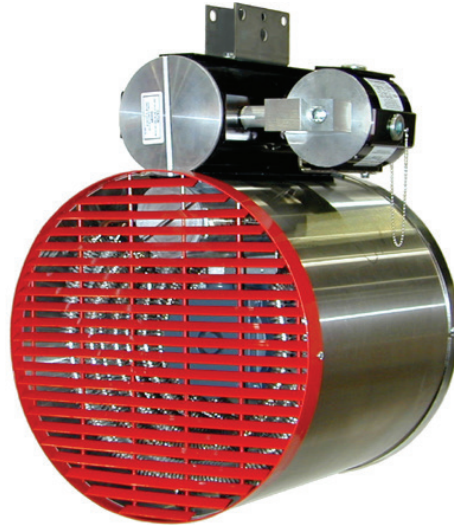
- Class I, Division 1 & 2, Groups C & D
- Class II, Division 1, Groups E, F & G
- Class II, Division 2, Groups F & G

NOTE: Group B and 50 Hz constructions available on large cabinet construction only on special request.
Class II and some atmospheric groups are not available in every kW rating.

Model Coding

XGB	-	38	T3B	3	-	1	-	T
Model Series	Wattage		Temperature Code	Heater Voltage	Phase	Options		
038	3.75 kW	200 - 20 kW	T3B - 329°F (165°C)	2 - 208V	1 - 1 Phase	T -	Thermostat	
050	5 kW	225 - 22.5 kW	T3A - 356°F (180°C)	3 - 240V	3 - 3 Phase	R -	Moisture-Resistant Design	
075	7.5 kW	250 - 25 kW	T2D - 215°C (419°F)	7 - 480V		EW -	50 Hz Construction	
100	10 kW	300 - 30 kW	T2C - 230°C (446°F)	8 - 600V		H -	Div. 2, Group B, C, D	
150	15 kW	350 - 35 kW				M -	Special Mechanical Features	
						E -	Special Electrical Feature -	Built-in Disconnect

*This nomenclature illustration is intended primarily to explain how a product part number is defined. Not all wattage, size and temperature code combinations are available. Please consult Table 3 or Table 4, page 8 for availability.



Flow Adjustment

In structures with high ceilings, other units may not have the range of motion needed to direct air flow to the floor. The XGB allows the unit to be tilted at a 30° angle below the horizontal. For lateral airflow, the entire louvre assembly can be rotated 90°.

No Conduit Seal Required

A factory installed conduit seal provides the necessary isolation between the supply and control housings. In Division 2, Zone 2 applications, a field installed conduit seal may not be required.

Simplified Wiring

To facilitate installation, the Norseman™ explosion-proof unit heaters feature Thermon Heating Systems' patented **x-Max**® housing with slide out terminal block trolley for connection of the electrical supply.

Table 3 – Norseman™ XGB Unit Heaters - Small Cabinet Units

Part No.	kW Btu/hr	V	Approx. CFM (L/s)	Approx. Temp Rise		Temperature Code				Class I		Class II			Maximum Line Amps		Recommended Fuse Size (Amps)	
				°F	°C	T2C	T2D	T3A	T3B	C	D	E	F	G	1Ø	3Ø	1Ø	3Ø
XGB038T3B	3.75 (12795)	208	850 (400)	13	7.4		✓	✓	✓				✓	✓	19	11	25	15
		240					✓	✓	✓				✓	✓	17	10	25	15
		480					✓	✓	✓				✓	-	6	-	10	
		600					✓	✓	✓				✓	-	5	-	10	
XGB050T3B	5 (17060)	208		18	9.8	✓	✓	✓	✓				✓	✓	25	15	35	20
		240					✓	✓	✓				✓	✓	22	13	30	20
		480					✓	✓	✓				✓	-	7	-	10	
		600					✓	✓	✓				✓	-	6	-	10	
XGB075T3A	7.5 (25590)	208	1000 (470)	23	12.5		✓	✓	-				-	-	37	22	50	30
		240					✓	✓	-				-	-	32	19	40	25
		480					✓	✓	-				-	-	10	-	15	
		600					✓	✓	-				-	-	8	-	10	
XGB100T2C	10 (34120)	208		30	16.7		-	-	-				-	-	-	29	-	40
		240					-	-	-				-	-	43	25	60	35
		480					-	-	-				-	-	-	13	-	20
		600					-	-	-				-	-	-	11	-	15

Table 4 – Norseman™ XGB Unit Heaters - Large Cabinet Units

Part No.	kW Btu/hr	V	Approx. CFM (L/s)	Approx. Temp Rise		Temperature Code				Class I		Class II			Maximum Line Amps		Recommended Fuse Size (Amps)		
				°F	°C	T2C	T2D	T3A	T3B	C	D	E	F	G	1Ø	3Ø	1Ø	3Ø	
XGB100T3B	10 (34120)	208	1850 (870)	16	9.0		✓	✓	✓							-	30	-	40
		240					✓	✓	✓							47	26	60	35
		480					✓	✓	✓							13	20		
		600					✓	✓	✓							11	15		
XGB150T3B	15 (51180)	208		24	13.5		✓	✓	✓				✓	✓	✓	44	60		
		240					✓	✓	✓							38	50		
		480					✓	✓	✓							19	25		
		600					✓	✓	✓							15	20		
XGB200T3B	20 (68250)	480		32	17.8	✓	✓	✓	✓						25	35			
		600					✓	✓	✓						20	25			
XGB225T3B	22.5 (76770)	480		36	20.0		✓	✓	✓						28	35			
		600					✓	✓	✓						23	30			
XGB250T3A	25 (85300)	480		41	22.8		✓	✓	-						31	40			
		600					✓	✓	-						-	-	25	35	
XGB300T2D	30 (102360)	480		49	27.2		✓	-	-						37	50			
		600					✓	-	-						-	-	30	40	
XGB350T2C	35 (119420)	480		57	31.5		-	-	-						43	60			
		600					-	-	-						-	-	34	45	

Standard Features

Small Cabinet

- 1/12 HP explosion-proof motor
- Inlet wire guard
- Extra heavy wall tubular steel finned heating elements with nickel plated finish
- Patented **x-Max**[®] explosion-proof terminal housing
- 120V control circuit includes:
 - Derated magnetic contactor
 - Dual automatic reset high limits
 - Transformer
- Heavy duty 16-gauge stainless steel casing
- Outlet louvre assembly
- Swivel bracket
- Factory installed conduit seal
- Supply connection housing
- Terminal block for supply wiring and thermostat connection

Large Cabinet

- 1/2 HP explosion-proof motor
- Inlet guard
- Extra heavy wall tubular steel finned heating elements with nickel plated finish
- Patented **x-Max**[®] explosion-proof terminal housing
- 120V control circuit includes:
 - Derated magnetic contactor
 - Dual automatic reset high limits
 - Transformer
 - Fan delay relay
 - Control fuse
- Heavy duty 16-gauge stainless steel casing
- Outlet louvre assembly
- Swivel bracket
- Factory installed conduit seal
- Supply connection housing
- Terminal block for supply wiring and thermostat connection

Optional Features

- Built-in, externally adjustable thermostat
- Built-in disconnect switch
- Moisture-resistant construction
- **“AUTO/OFF/FAN ONLY”** switch
- Pilot light
- Manual reset high limit
- Arctic duty design
- Class I, Division 2, Groups B, C & D design available on request*
- Group E*
- 50 Hz construction*

*Large cabinet only.

Mounting Accessories

Ceiling mount kit; Wall mount kit; Post mount kit; Floor stand kit.

Thermostats

Thermon Heating Systems offers a wide variety of explosion-proof thermostats to suit most every need. Norseman™ unit heaters are available with optional built-in, externally adjustable, bulb-type thermostats. Thermostats for remote mounting can be provided upon request.

Motors

Fractional horsepower, 1725 RPM explosion-proof motor with double shielded ball bearings and built-in thermal overload. Small cabinet units use 1/12 HP motor approved for Class I, Group D; Class II, Groups F and G. Large cabinet units use 1/2 HP motor approved for Class I, Groups C and D; Class II, Groups E, F and G, as standard.

NOTE: Not all options are available on all models or kW ratings. Check factory for options and construction availability prior to ordering.

Outlet Louvres

A louvred grille on the heater outlet end is supplied as standard. The louver assembly may be positioned either horizontally or vertically for maximum flexibility.

NOTE: Proper motor/fan rotation, viewed from the rear of the heater, is counter-clockwise for small cabinet heaters and clockwise for the large cabinet units, as indicated by the fan rotation label on the heater. Incorrect rotation of the fan will cause the heater to overheat and cycle on the high limits. Consult factory in case of incorrect rotation.

Heater Dimensions and Weight

Table 5 – Heater Dimensions

	in (mm)				
	A	B	C	D1	D2
Small Cabinet	16.875 (429)	8.875 (225)	25.1875 (640)	17.5 (445)	-
Large Cabinet	20.125 (511)	8.875 (225)	29.25 (743)	-	31.25 (794)

Table 6 – Heater Weight

	kW Rating	Heater Weight	Shipping Weight
		lbs (kg)	lbs (kg)
Small Cabinet	3.75 to 10	100 (45)	110 (50)
Large Cabinet	10 to 15	154 (66)	182 (83)
	20 to 35	185 (84)	222 (101)

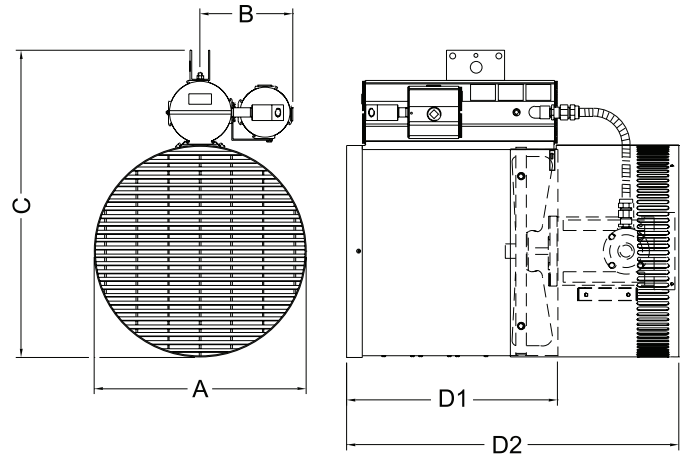


Figure 1 – XGB Dimensions

Temperature Control

Built-In Thermostat (Optional)

When specified, the unit comes equipped with a built-in thermostat prewired to all other standard controls. Set the temperature to the desired operating condition.

Remote Thermostat (Optional)

Install the XT thermostat in accordance with the instruction sheet provided. Terminals “T1” and “T2” in the heater supply housing are provided for connection to a remote thermostat and are prewired to the rest of the control circuit. Remove the jumper wire between “T1” and “T2” and connect the thermostat to these terminals. Set the temperature to the desired operating condition.

“AUTO/OFF/FAN-ONLY SWITCH” (Optional)

If ordered, a factory installed “**AUTO/OFF/FAN-ONLY**” switch may be included on the heater. The “fan-only” feature allows the heater to cycle in a “heat” mode dictated by the controlling thermostat, even though the fan is operating continuously.

Manual Reset High-Limit (Optional)

If it is required, the heater can be equipped with one manual reset high-limit. This manual reset high-limit is installed in lieu of one of the auto-reset high-limits. Normal operation of the heater remains the same unless the manual reset high-limit trips, in which case the limit must be reset manually.

Mounting

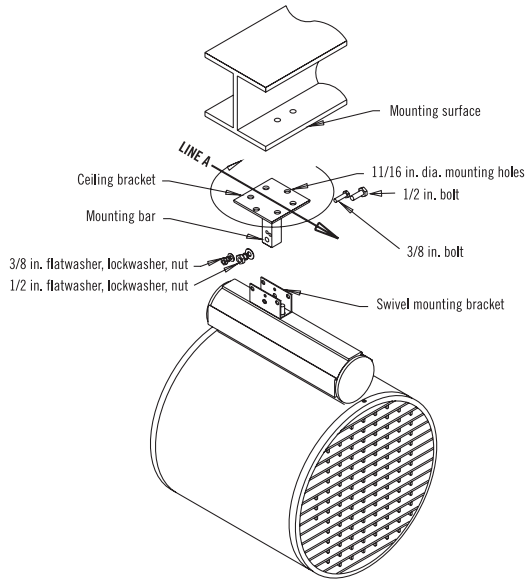


Figure 2 – Ceiling Mounting

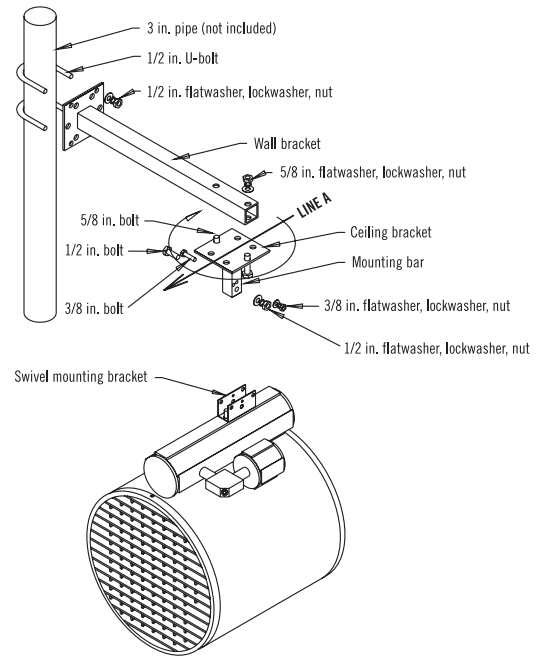


Figure 4 – Post Mounting

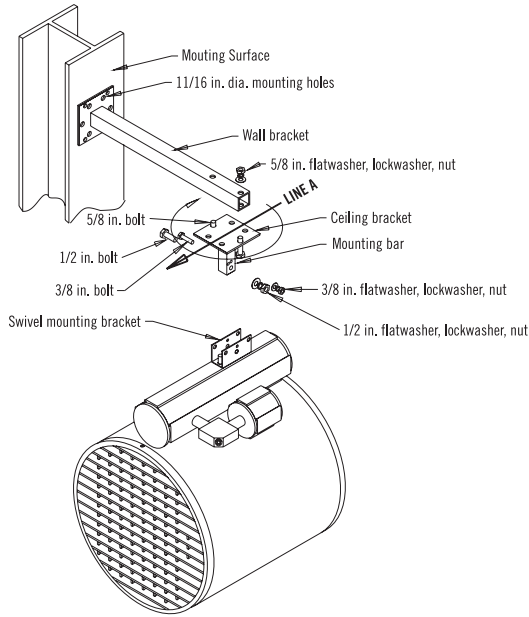


Figure 3 – Wall Mounting

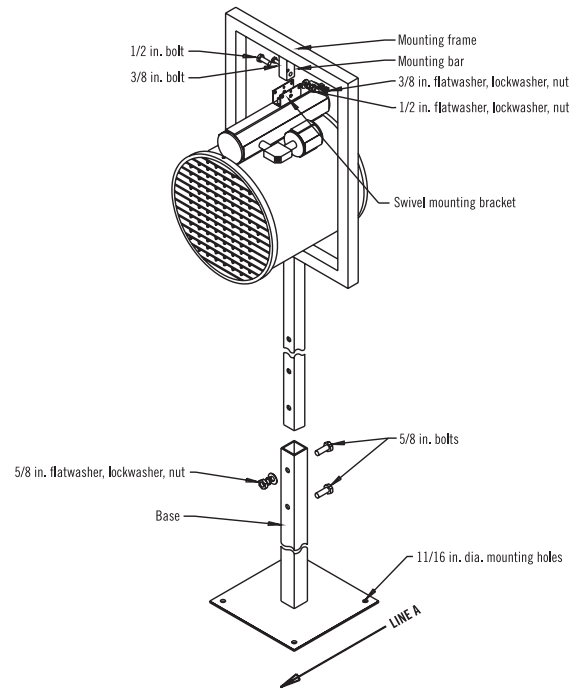


Figure 5 – Floor Stand Mounting

Table 7 – Mounting Kit Part Numbers

Part No.	Description
AC-CM-01	Ceiling Mount Kit
AC-WM-01	Wall Mount Kit
AC-PM-01	Post Mount Kit
AC-FMS-01	Floor Stand Kit